

Complete Summary

TITLE

Hypertension: percent of patients with an active diagnosis of hypertension whose most recent blood pressure reading was greater than or equal to 160/100 or no blood pressure recorded in past year.

SOURCE(S)

Office of Quality and Performance (10Q). FY2002 VHA performance measurement system. Technical Manual. Washington (DC): Veterans Health Administration (VHA); 2002 Mar 8. 137 p.

Brief Abstract

DESCRIPTION

This measure assesses the percentage of patients with an active diagnosis of hypertension whose most recent blood pressure recording was greater than or equal to 160/100 or in whom no blood pressure measurement was recorded in the past year.

This measure is a component of a composite measure; it can also be used on its own.

RATIONALE

The mortality rate from hypertension has climbed substantially over the past 10 years. Of patients with hypertension, 31.6% are unaware they have the disease, 27.4% are on medication and have it controlled, 26.2% are on medication but don't have their disease under control, and 14.8% aren't on medication.

PRIMARY CLINICAL COMPONENT

Hypertension; blood pressure recording

DENOMINATOR DESCRIPTION

A sample of patients with a diagnosis of hypertension seen by a physician (MD or DO), physician assistant (PA), or nurse practitioner (NP) at a specified clinic in the past year

NUMERATOR DESCRIPTION

The number of patients from the denominator whose most recent blood pressure recording was greater than or equal to 160/100 or who have no blood pressure recorded in the past year

Evidence Supporting the Measure

PRIMARY MEASURE DOMAIN

Outcome

SECONDARY MEASURE DOMAIN

Process

EVIDENCE SUPPORTING THE MEASURE

A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence

NATIONAL GUIDELINE CLEARINGHOUSE LINK

- [Diagnosis and management of hypertension in the primary care setting.](#)

Evidence Supporting Need for the Measure

NEED FOR THE MEASURE

Wide variation in quality for the performance measured

EVIDENCE SUPPORTING NEED FOR THE MEASURE

Office of Quality and Performance (10Q). FY2002 VHA performance measurement system. Technical Manual. Washington (DC): Veterans Health Administration (VHA); 2002 Mar 8. 137 p.

State of Use of the Measure

STATE OF USE

Current routine use

CURRENT USE

External oversight/Veterans Health Administration
Internal quality improvement

Application of Measure in its Current Use

CARE SETTING

Ambulatory Care

PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Advanced Practice Nurses
Physician Assistants
Physicians

LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Single Health Care Delivery Organizations

TARGET POPULATION AGE

Unspecified

TARGET POPULATION GENDER

Either male or female

STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

Characteristics of the Primary Clinical Component

INCIDENCE/PREVALENCE

Unspecified

ASSOCIATION WITH VULNERABLE POPULATIONS

See "Burden of Illness" field.

EVIDENCE FOR ASSOCIATION WITH VULNERABLE POPULATIONS

American Heart Association (AHA). Biostatistical fact sheet - risk factors. High blood pressure. Dallas (TX): American Heart Association (AHA); 2002. 4 p.

BURDEN OF ILLNESS

From 1988 to 1998 the death rate from hypertension increased 16%, but the actual number of deaths rose 40.2%. 1998 mortality rates from hypertension were 13.9% for white males, 51.8% for black males, 13% for white females and 42.9% for black females. As many as 30% of all deaths in hypertensive black men

and 20% of all deaths in hypertensive black women may be attributable to hypertension.

EVIDENCE FOR BURDEN OF ILLNESS

American Heart Association (AHA). Biostatistical fact sheet - risk factors. High blood pressure. Dallas (TX): American Heart Association (AHA); 2002. 4 p.

UTILIZATION

Unspecified

COSTS

Unspecified

Institute of Medicine National Healthcare Quality Report Categories

IOM CARE NEED

Living with Illness

IOM DOMAIN

Effectiveness

Data Collection for the Measure

CASE FINDING

Users of care only

DESCRIPTION OF CASE FINDING

All individuals with the primary or secondary diagnosis of hypertension not already reviewed during the 12-month period who visited 1 of a specified list of outpatient clinics

DENOMINATOR (INDEX) EVENT

Clinical Condition
Encounter

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions

All hypertensive patients with active primary or secondary diagnoses of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) code 401.0 (malignant hypertension), 401.1 (benign hypertension), or

401.9 (unspecified) seen within the past 12 months in one of the following 8 clinics: *

- Primary Care
- General Medicine
- Cardiology
- Endocrinology/Metabolism
- Diabetes
- Hypertension
- Pulmonary/Chest
- Women's Clinic

*Note: To qualify for the sample, the patient needs to have been seen in one of the 8 clinics; however, if the blood pressure was taken in any of the 11 clinics (the above listed plus Mental Health Primary Care: group or individual or Geriatric Primary Care)--it is used in the performance measure.

The diagnosis is considered active if the condition was ever diagnosed and there is not subsequent statement, prior to the most recent outpatient visit, indicating the condition was resolved or is inactive.

All patients seen in one of the above clinics and seen by a:

- Physician (MD or DO),
- Physician Assistant (PA), or
- Nurse Practitioner (NP)

The MD/DO, PA, or NP must record hypertension as the patient's diagnosis.

A diagnosis of 'borderline hypertension' is hypertension IF it is coded as hypertension and is being treated as hypertension, by recommended with weight loss and/or recommended increase in physical activity, and/or prescription for medication such as a diuretic, beta-blocker, angiotensin converting enzyme (ACE) inhibitor, angiotensin receptor blocker (ARB), or calcium channel blocker.

If no blood pressure was recorded during the past year, the result is assumed to be in poor control. Patient is included in the denominator.

Exclusions

All patients whose current year qualifying visit was at a tertiary facility for a specialty consult only (no other primary care or general medicine visit at the tertiary center)

The ICD-9-CM codes above do not include pulmonary hypertension, that involving vessels of the brain and eye, or elevated blood pressure with a diagnosis of hypertension.

NUMERATOR INCLUSIONS/EXCLUSIONS

Inclusions

If blood pressure is taken more than once during the most recent visit to one of

the 11 key clinics, the lowest one is used. Lowest is determined by mean arterial pressure: (systolic + systolic + diastolic) divided by 3.

If no blood pressure was recorded during the past year, the result is assumed to be out of control. Patient is included in the numerator.

Exclusions

Patient self-report of blood pressure is not accepted.

DENOMINATOR TIME WINDOW

Time window precedes index event

NUMERATOR TIME WINDOW

Encounter or point in time

DATA SOURCE

Administrative and medical records data

LEVEL OF DETERMINATION OF QUALITY

Individual Case

OUTCOME TYPE

Clinical Outcome

PRE-EXISTING INSTRUMENT USED

Unspecified

Computation of the Measure

SCORING

Rate

INTERPRETATION OF SCORE

Better quality is associated with a lower score

ALLOWANCE FOR PATIENT FACTORS

Unspecified

STANDARD OF COMPARISON

Internal time comparison
Prescriptive standard

PRESCRIPTIVE STANDARD

Fiscal year (FY) 2002 target hypertension greater than or equal to 160/100 or not done indicator component target:

- Fully successful: 15%
- Exceptional: 13%

EVIDENCE FOR PRESCRIPTIVE STANDARD

Knight EL, Avorn J. Quality indicators for appropriate medication use in vulnerable elders. Ann Intern Med 2001 Oct 16; 135(8 Pt 2): 703-10. [PubMed](#)

Evaluation of Measure Properties

EXTENT OF MEASURE TESTING

Unspecified

Identifying Information

ORIGINAL TITLE

CPG-hypertension (HTN greater than or equal to 160/100 [lower score is better]).

MEASURE COLLECTION

[Fiscal Year \(FY\) 2002: Veterans Health Administration \(VHA\) Performance Measurement System](#)

MEASURE SET NAME

[Clinical Practice Guidelines \(FY 2002\)](#)

COMPOSITE MEASURE NAME

[Hypertension](#)

DEVELOPER

Veterans Health Administration

ADAPTATION

Measure was not adapted from another source.

RELEASE DATE

2001 Nov

REVISION DATE

2002 Mar

MEASURE STATUS

Please note: This measure has been updated. The National Quality Measures Clearinghouse is working to update this summary.

SOURCE(S)

Office of Quality and Performance (10Q). FY2002 VHA performance measurement system. Technical Manual. Washington (DC): Veterans Health Administration (VHA); 2002 Mar 8. 137 p.

MEASURE AVAILABILITY

The individual measure, "CPG-Hypertension (HTN Greater Than or Equal to 160/100 [Lower Score is Better]," is published in "FY 2002 VHA Performance Measurement System: Technical Manual." This document is available in Word format from the [Veterans Health Administration Web site](#).

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NQMC STATUS

This NQMC summary was completed by ECRI on September 27, 2002. The information was verified by the Veterans Health Administration on October 29, 2002.

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